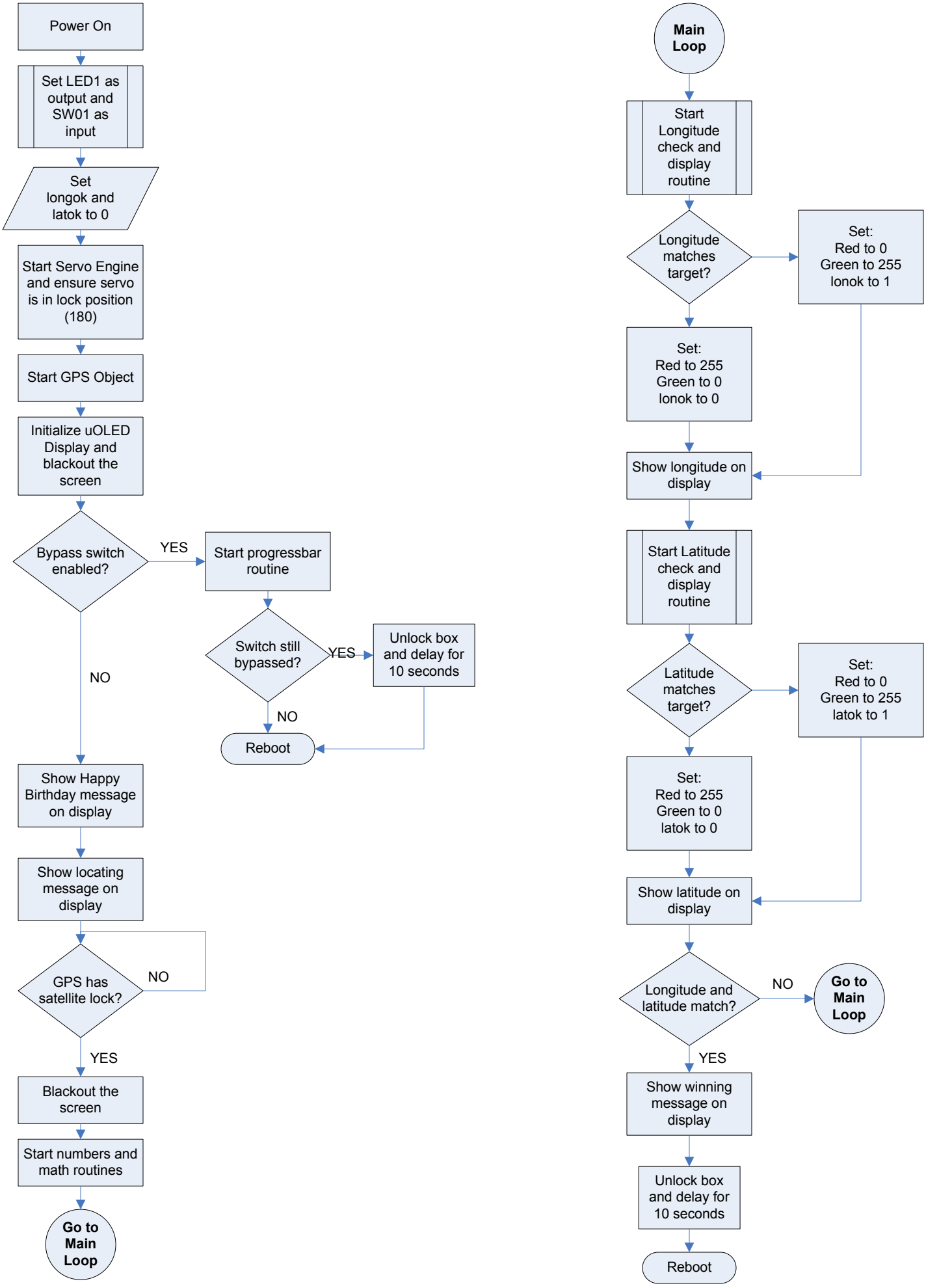
Power On
Set LED1 as output and SW01 as input
Set longok and latok to 0
Start Servo Engine and ensure servo is in lock position (180)
Start GPS Object
Initialize uOLED Display and blackout the screen
Bypass switch enabled?
YES
Start progressbar routine
Switch still bypassed?
YES
Unlock box and delay for 10 seconds
NO
Reboot
NO
Show Happy Birthday message on display
Show locating message on display
GPS has satellite lock?
NO
YES
Blackout the screen
Start numbers and math routines
Go to Main Loop
Main Loop
Start Longitude check and display routine
Longitude matches target?
Set: Red to 0 Green to 255 lonok to 1
Set: Red to 255 Green to 0 lonok to 0
Show longitude on display
Start Latitude check and display routine
Latitude matches target?
Set: Red to 0 Green to 255 latok to 1
Set: Red to 255 Green to 0 latok to 0
Show latitude on display
Longitude and latitude match?
NO
Go to Main Loop
YES
Show winning message on display
Unlock box and delay for 10 seconds
Reboot